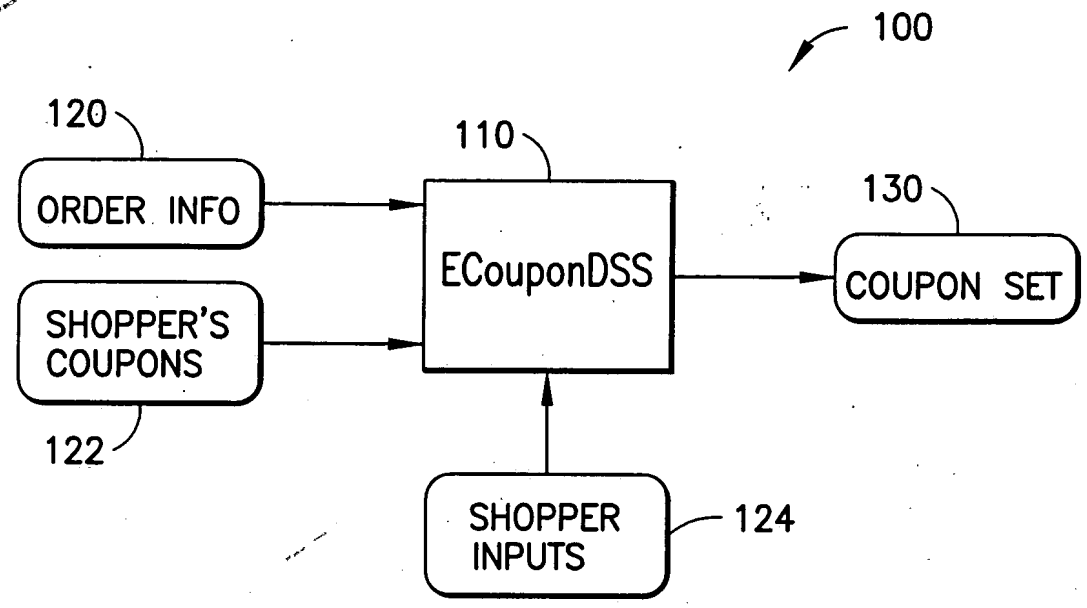

100
120
ORDER INFO
110
ECouponDSS
130
COUPON SET
SHOPPER'S COUPONS
122
SHOPPER INPUTS
124

FIG. 1

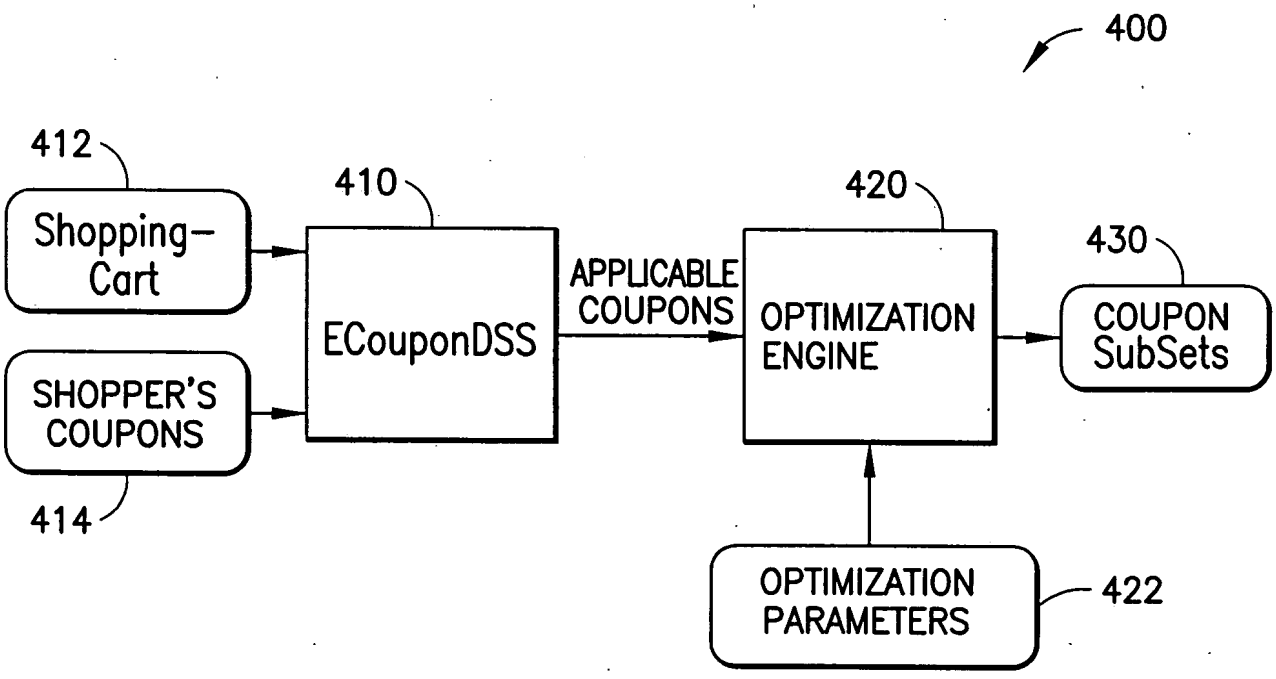

400
412
Shopping-Cart
410
ECouponDSS
APPLICABLE COUPONS
420
OPTIMIZATION ENGINE
430
COUPON SubSets
SHOPPER'S COUPONS
414
OPTIMIZATION PARAMETERS
422

FIG. 4

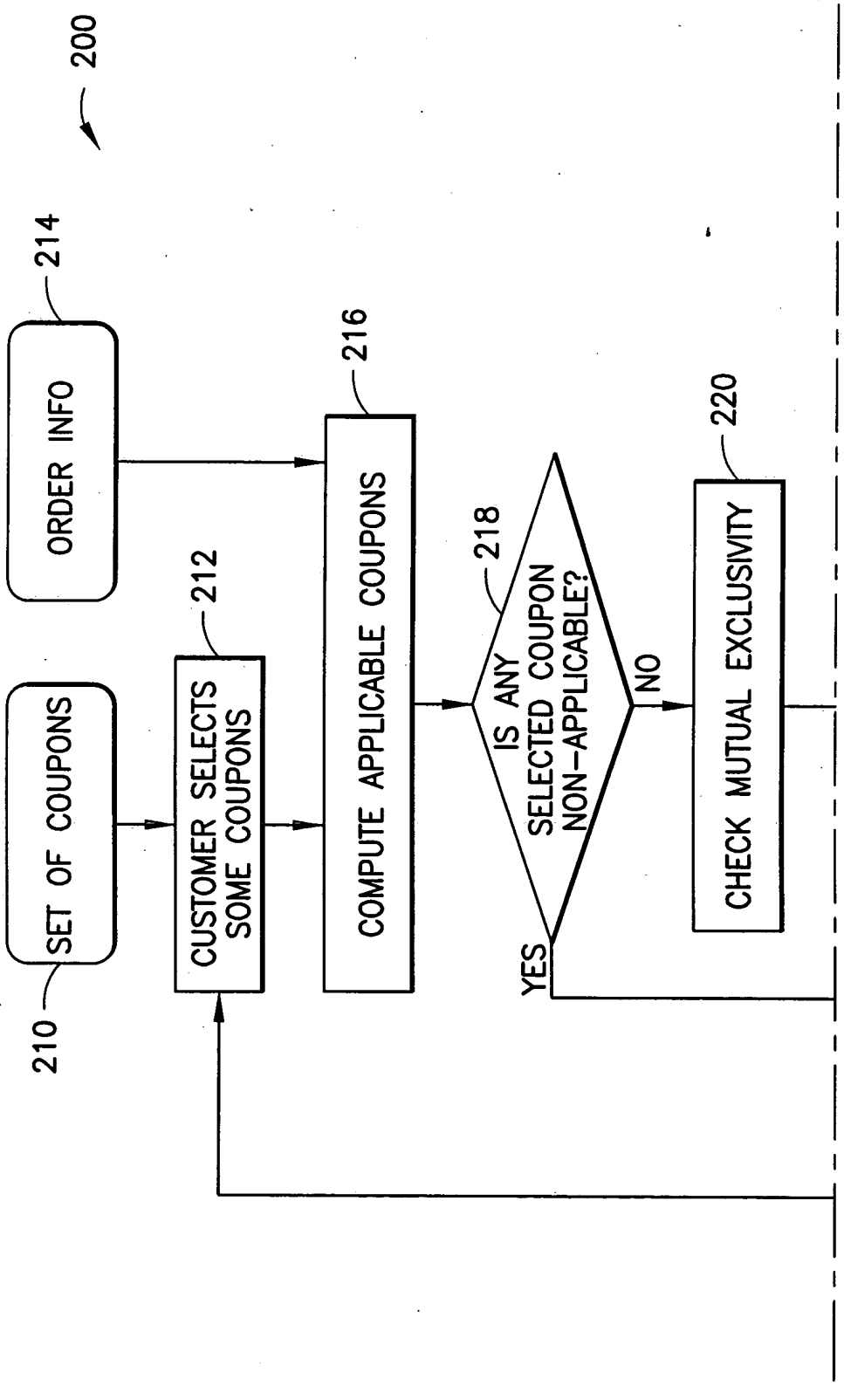


FIG.2A

FIG.2

FIG.2A
FIG.2B

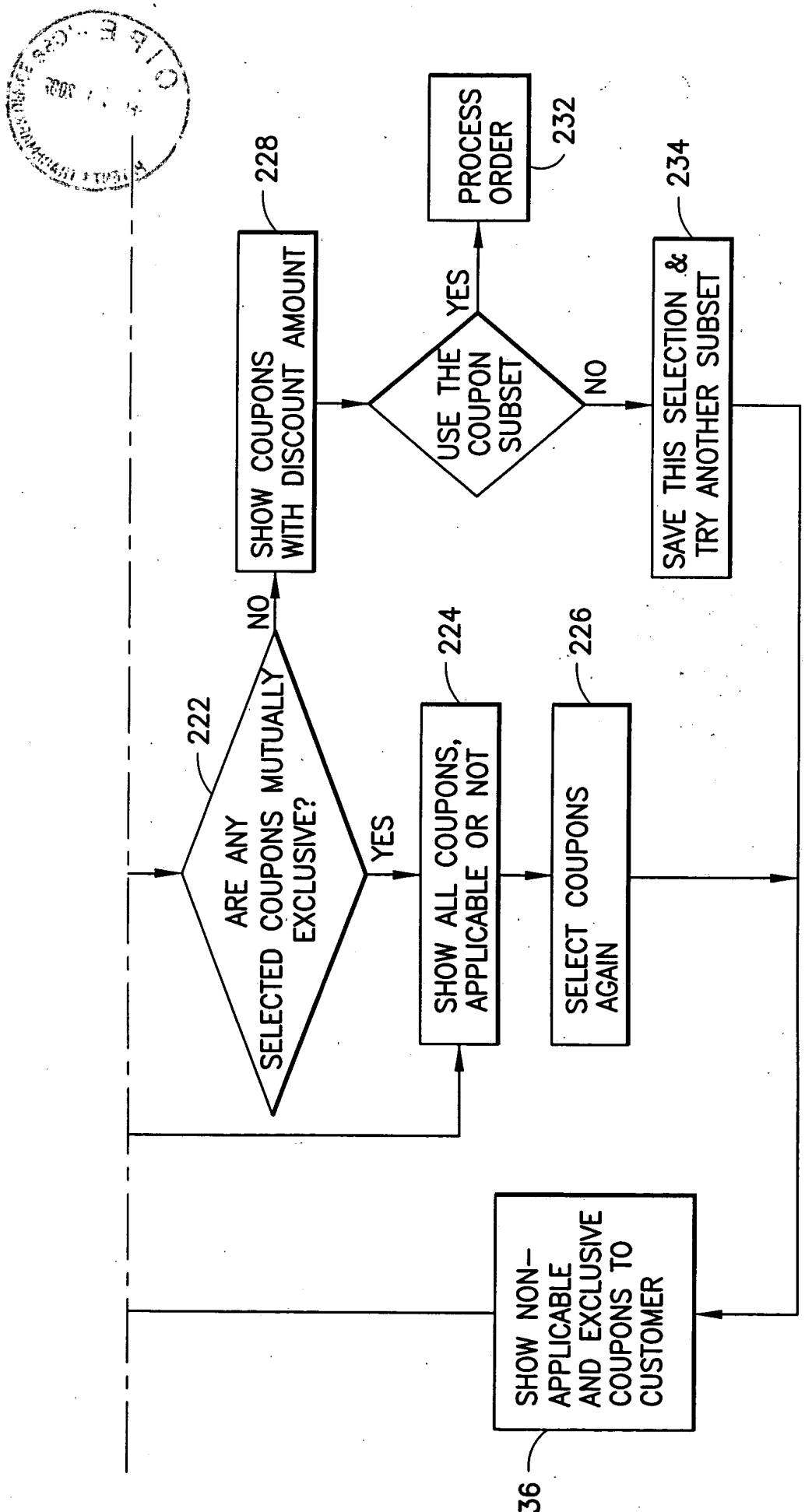
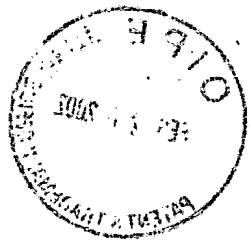

ARE ANY SELECTED COUPONS MUTUALLY EXCLUSIVE?
222
NO
YES
SHOW ALL COUPONS, APPLICABLE OR NOT
224
SELECT COUPONS AGAIN
226
SHOW COUPONS WITH DISCOUNT AMOUNT
228
USE THE COUPON SUBSET
YES
NO
PROCESS ORDER
232
SAVE THIS SELECTION & TRY ANOTHER SUBSET
234
SHOW NON-APPLICABLE AND EXCLUSIVE COUPONS TO CUSTOMER
236

FIG.2B



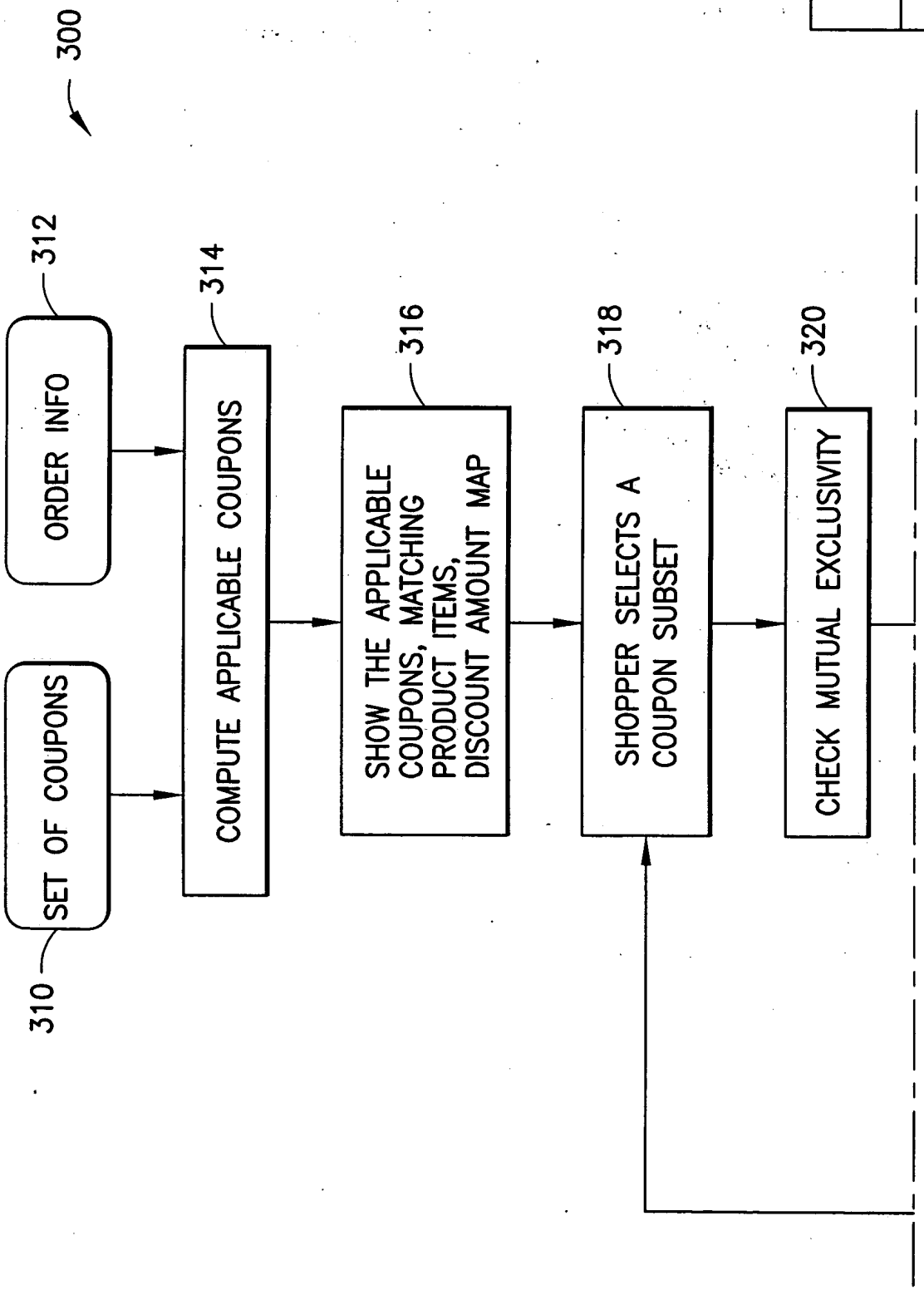


FIG.3A

FIG.3B

FIG.3

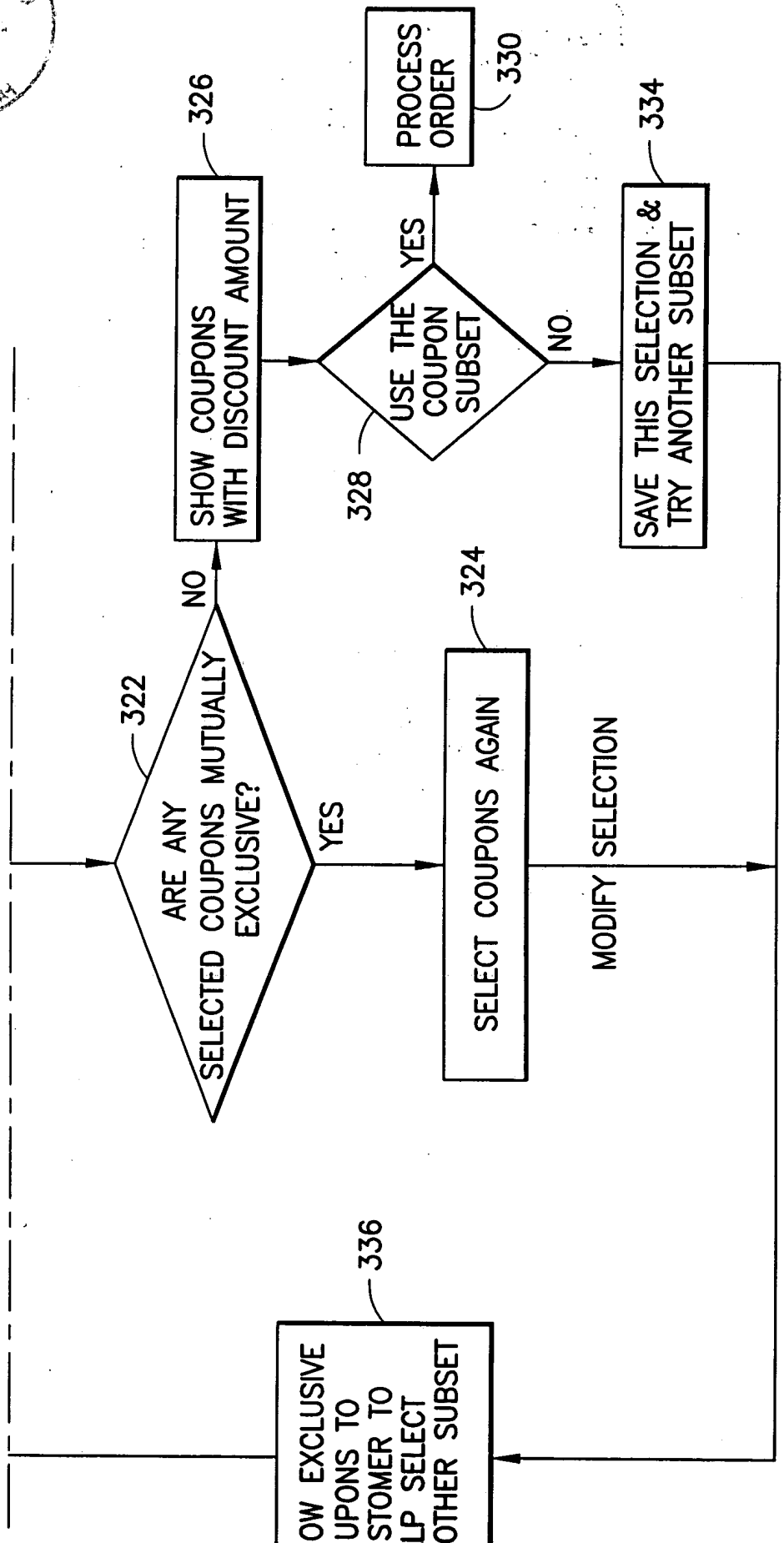

ARE ANY SELECTED COUPONS MUTUALLY EXCLUSIVE?
322
NO
YES
SHOW COUPONS WITH DISCOUNT AMOUNT
326
USE THE COUPON SUBSET
328
YES
NO
PROCESS ORDER
330
SAVE THIS SELECTION & TRY ANOTHER SUBSET
334
SELECT COUPONS AGAIN
324
MODIFY SELECTION
336

FIG.3B

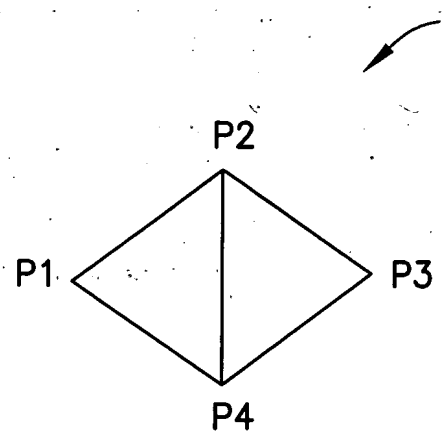


FIG.5

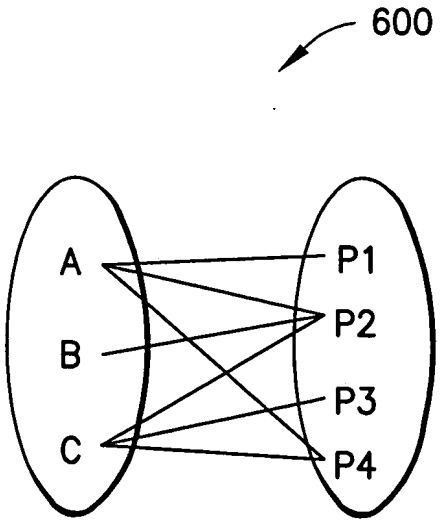


FIG.6

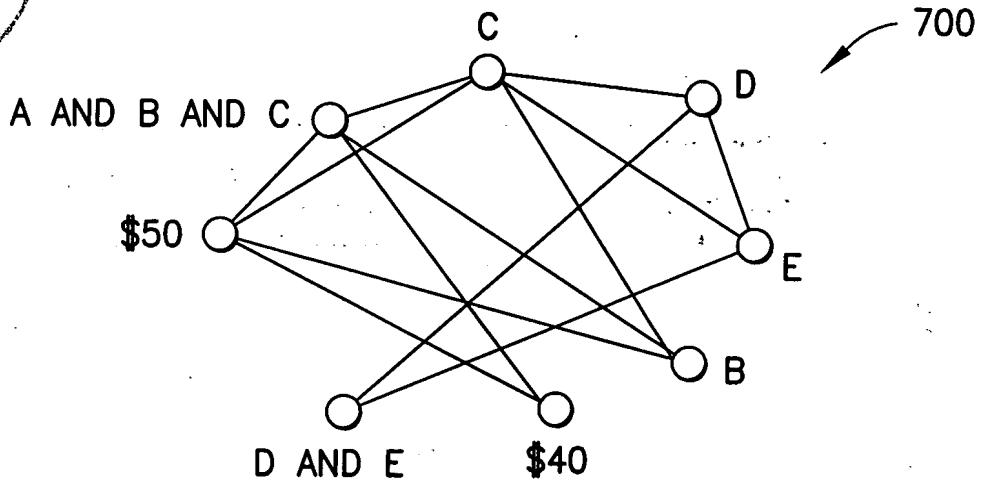
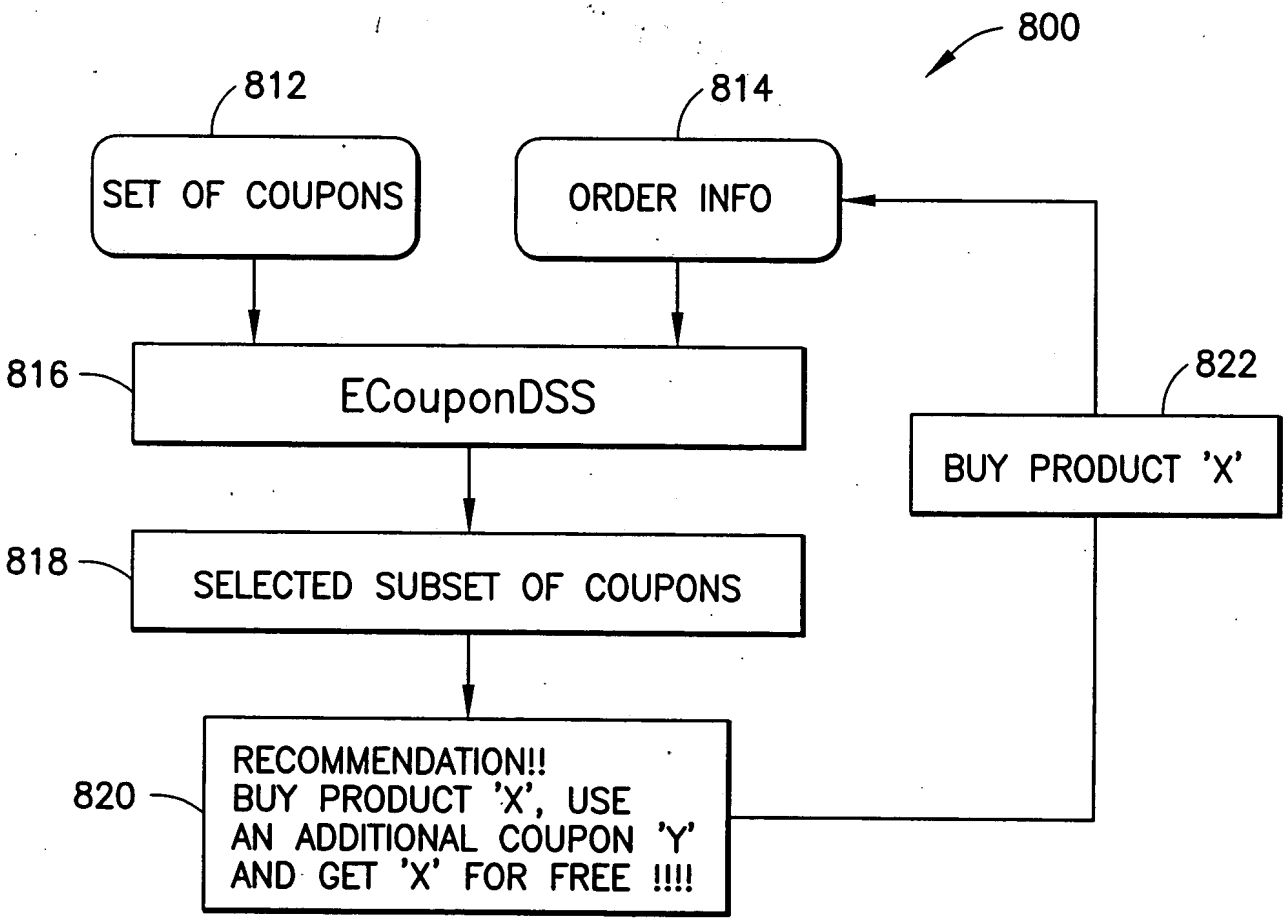

700
C
D
A AND B AND C
$50
E
B
D AND E
$40

FIG.7


800
812
814
SET OF COUPONS
ORDER INFO
816
ECouponDSS
822
BUY PRODUCT 'X'
818
SELECTED SUBSET OF COUPONS
820
RECOMMENDATION!!
BUY PRODUCT 'X', USE
AN ADDITIONAL COUPON 'Y'
AND GET 'X' FOR FREE !!!!

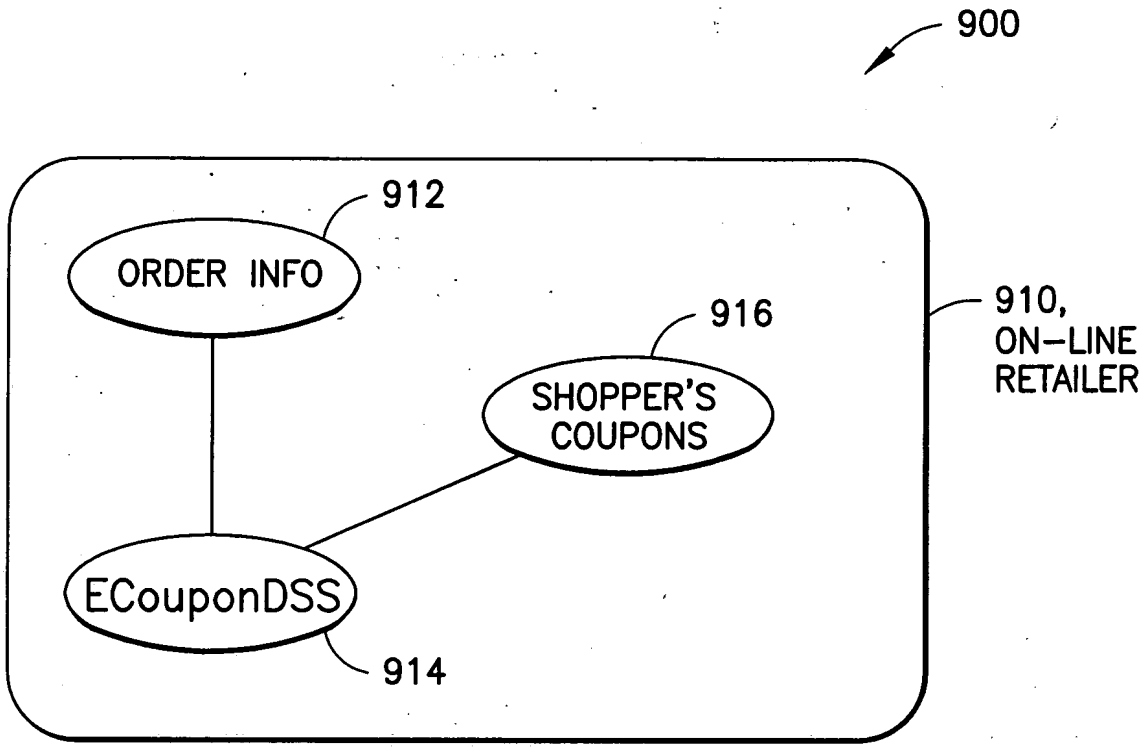

900
912
ORDER INFO
916
SHOPPER'S COUPONS
910, ON-LINE RETAILER
ECouponDSS
914

FIG.9

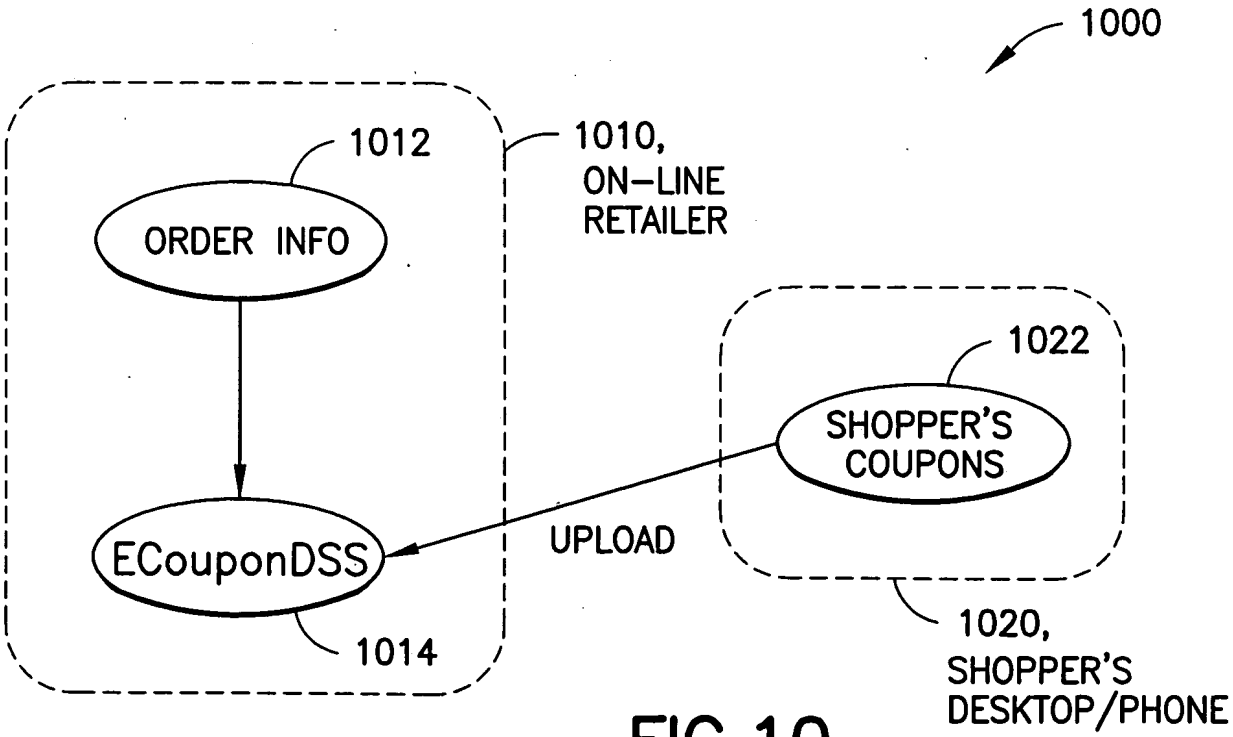

1000
1012
1010, ON-LINE RETAILER
ORDER INFO
1022
SHOPPER'S COUPONS
ECouponDSS
UPLOAD
1014
1020, SHOPPER'S DESKTOP/PHONE

FIG.10

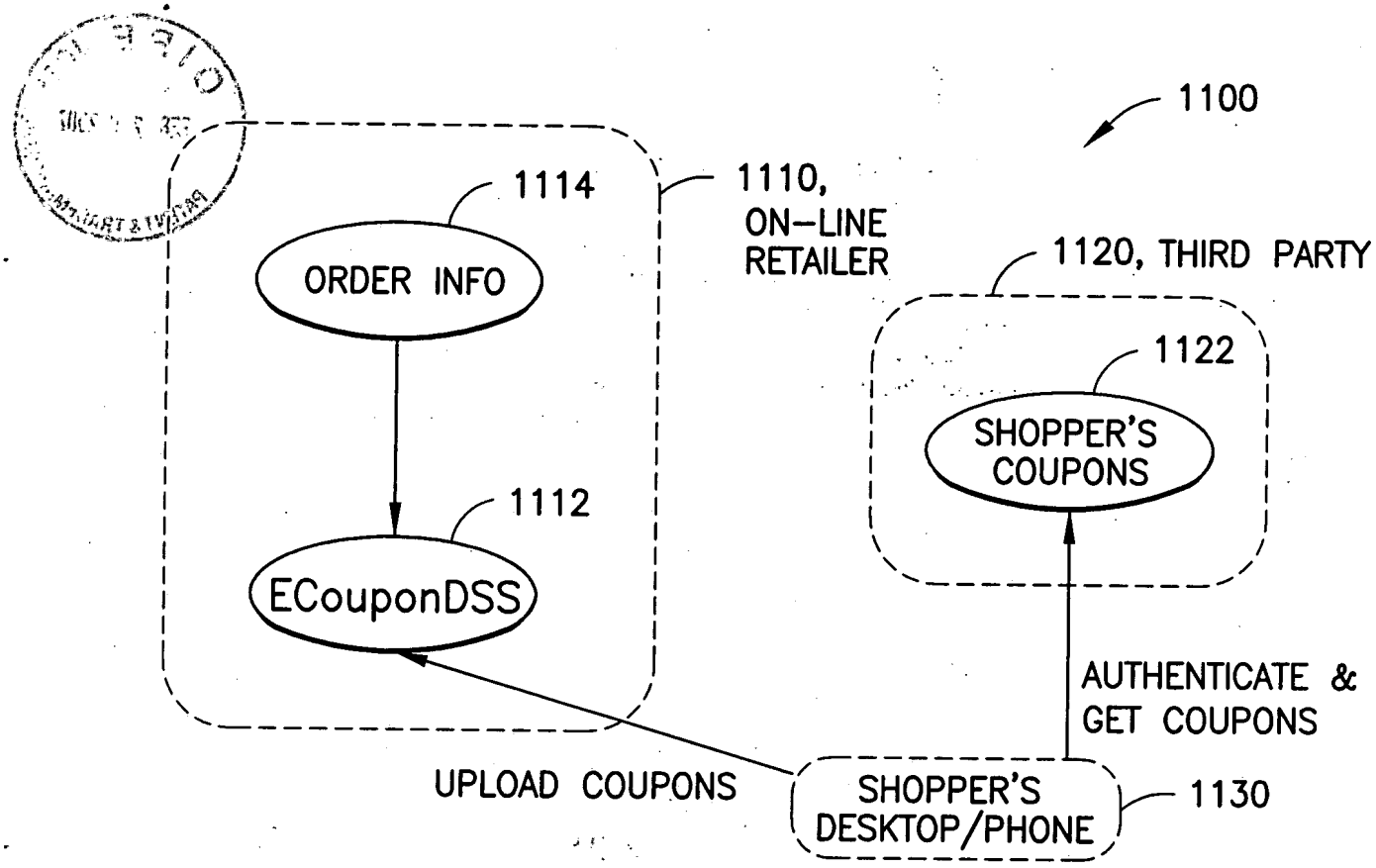
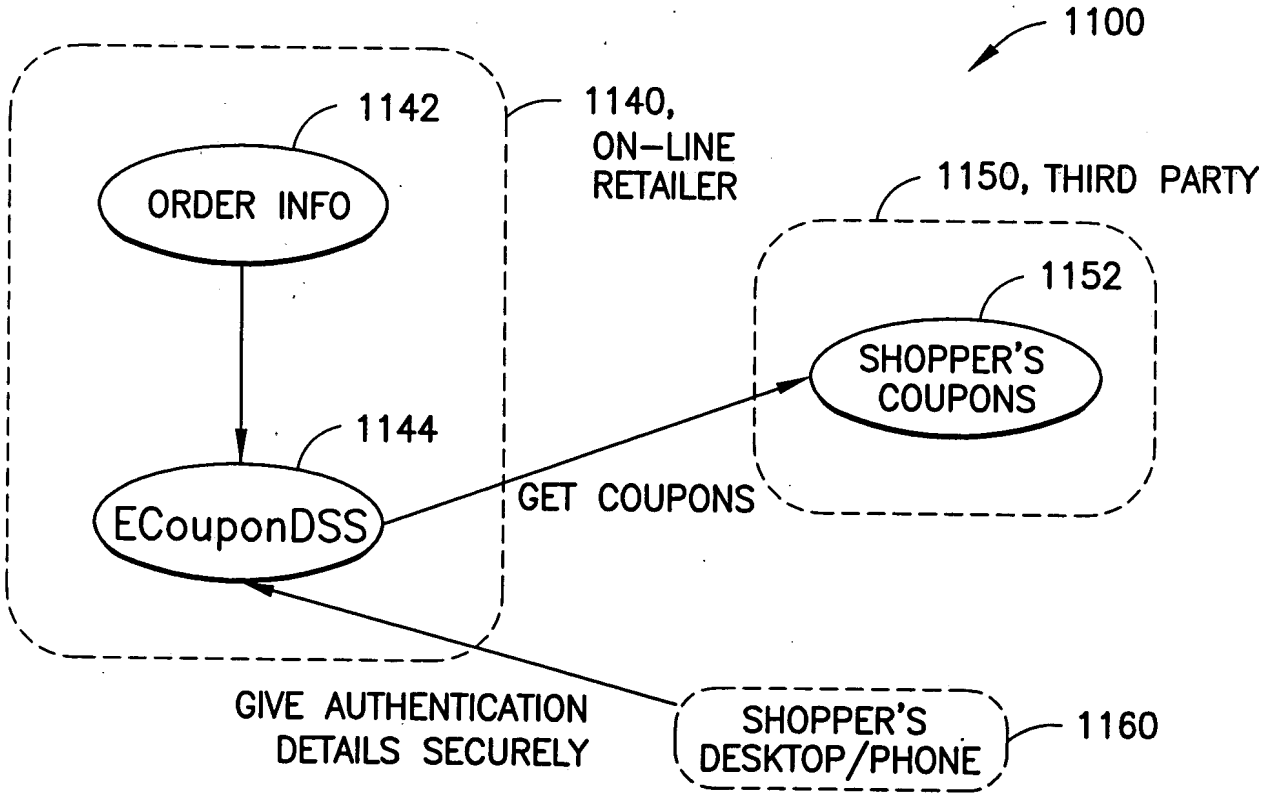

1100
1110,
ON-LINE
RETAILER
1114
ORDER INFO
1112
ECouponDSS
1120, THIRD PARTY
1122
SHOPPER'S
COUPONS
AUTHENTICATE &
GET COUPONS
UPLOAD COUPONS
SHOPPER'S
DESKTOP/PHONE
1130

FIG.11A


1100
1140,
ON-LINE
RETAILER
1142
ORDER INFO
1144
ECouponDSS
1150, THIRD PARTY
1152
SHOPPER'S
COUPONS
GET COUPONS
GIVE AUTHENTICATION
DETAILS SECURELY
SHOPPER'S
DESKTOP/PHONE
1160

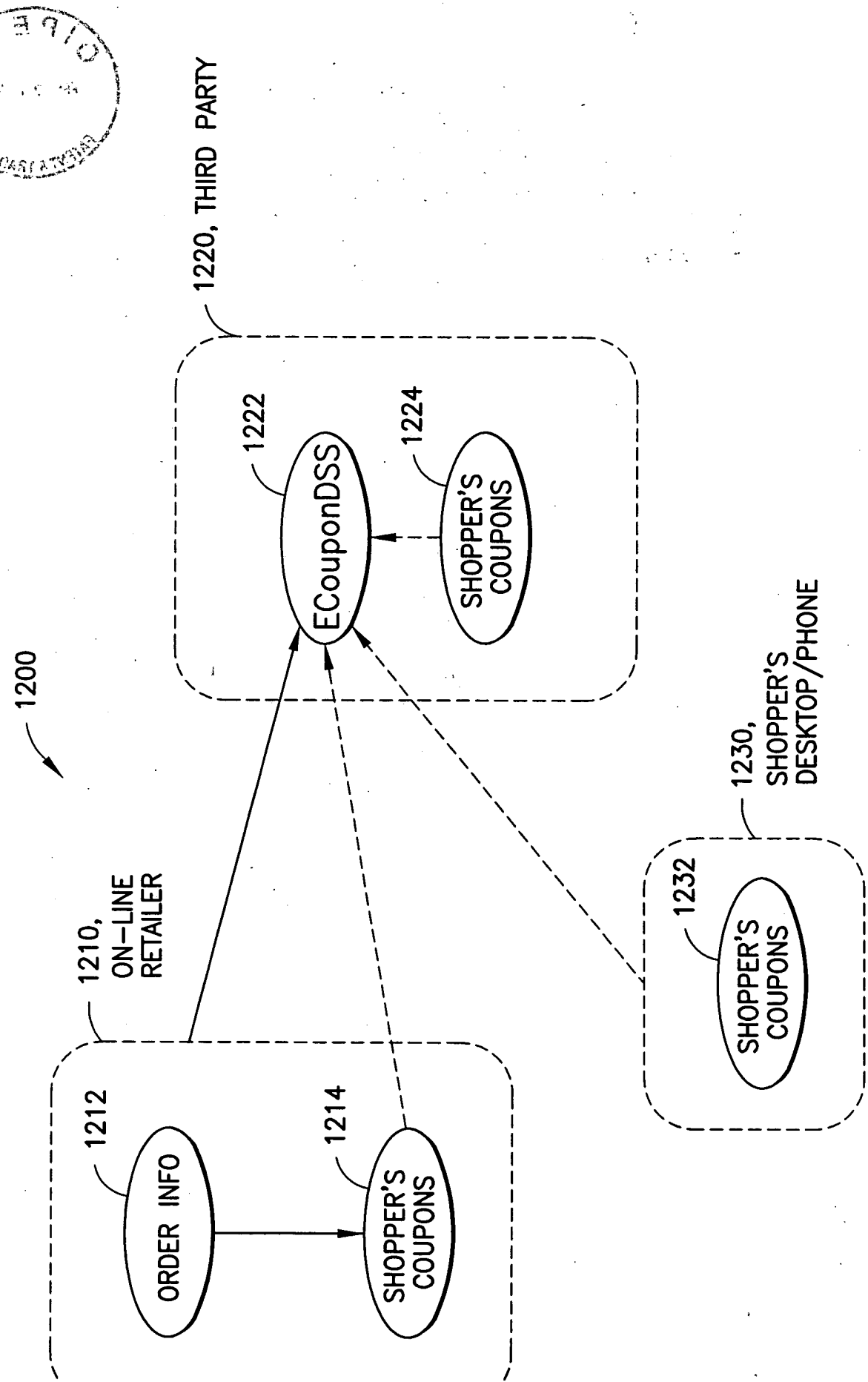

1200
1210, ON-LINE RETAILER
1212
ORDER INFO
1214
SHOPPER'S COUPONS
1220, THIRD PARTY
1222
ECouponDSS
1224
SHOPPER'S COUPONS
1230, SHOPPER'S DESKTOP/PHONE
1232
SHOPPER'S COUPONS

FIG. 12

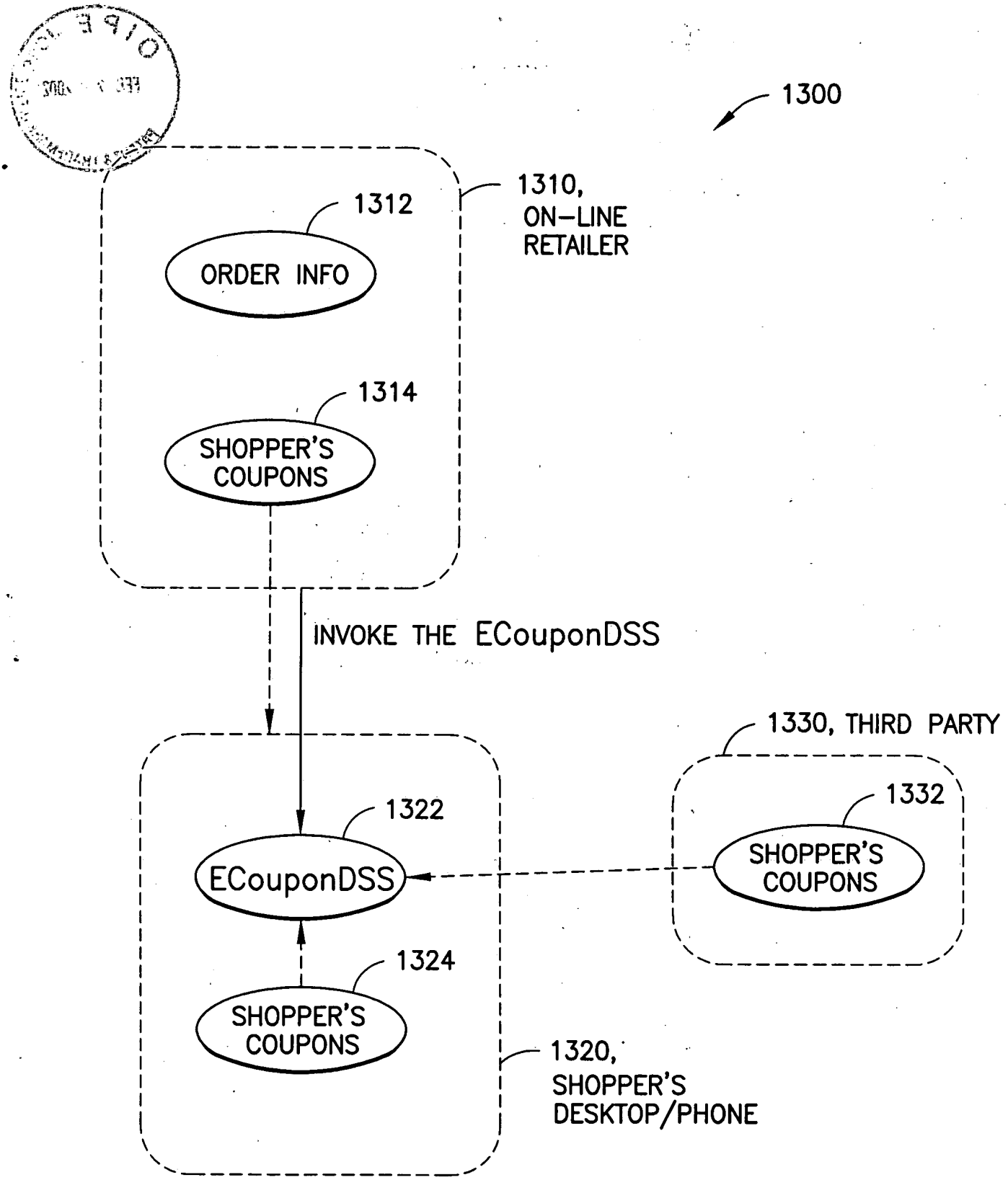

1300
1310,
ON-LINE
RETAILER
1312
ORDER INFO
1314
SHOPPER'S
COUPONS
INVOKE THE ECouponDSS
1330, THIRD PARTY
1322
ECouponDSS
1332
SHOPPER'S
COUPONS
1324
SHOPPER'S
COUPONS
1320,
SHOPPER'S
DESKTOP/PHONE

FIG. 13

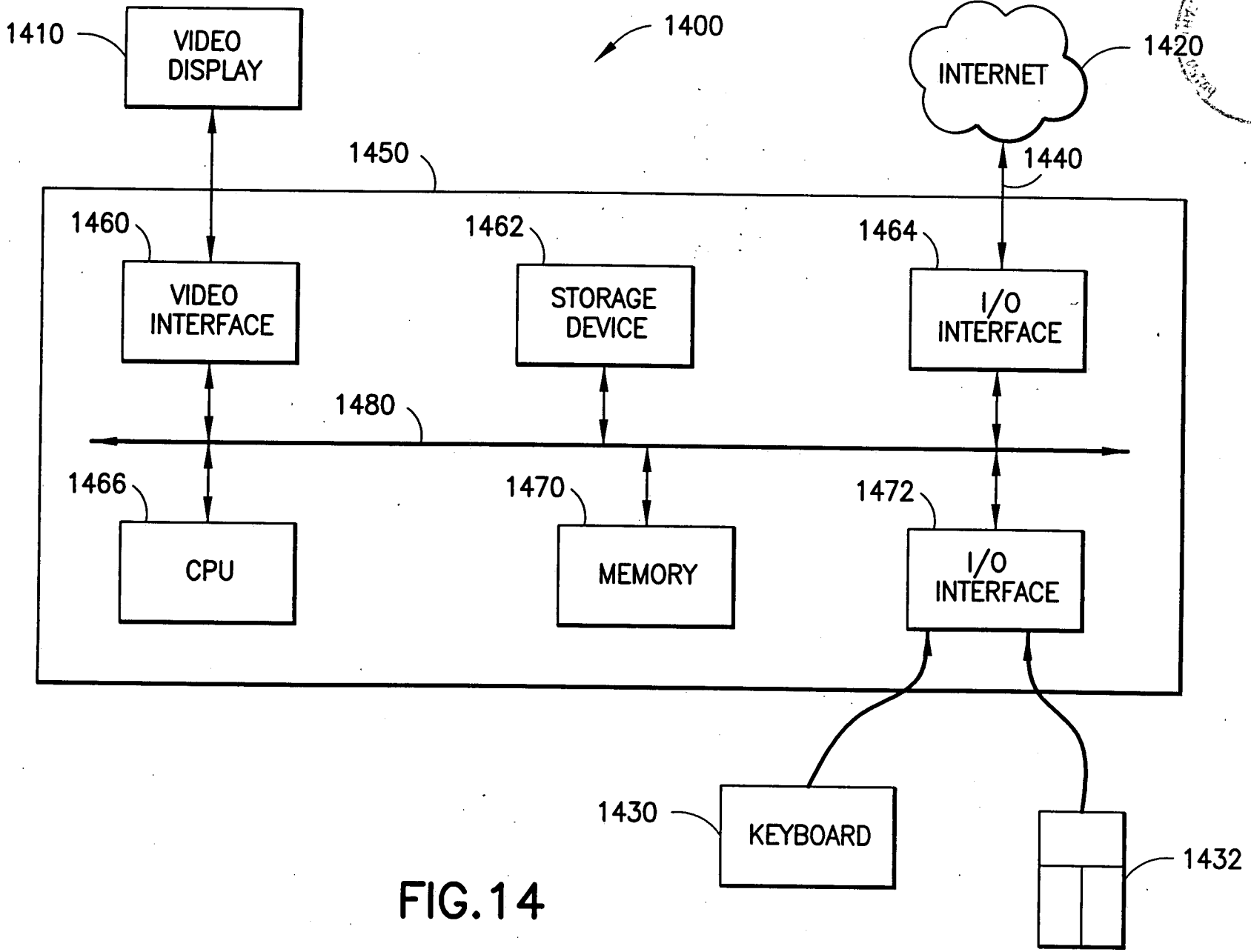

1410
VIDEO DISPLAY
1400
INTERNET
1420
1450
1440
1460
VIDEO INTERFACE
1462
STORAGE DEVICE
1464
I/O INTERFACE
1480
1466
CPU
1470
MEMORY
1472
I/O INTERFACE
1430
KEYBOARD
1432

FIG.14